



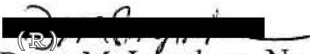
## Federal Aviation Administration

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# Memorandum

**Date:** October 5, 2010

**To:** Nancy Kort, Director, Terminal Operations, Central Service Area  
THRU: David Medina, ATO Manager, Central Service Center Quality Control Group

**From:**   
Dawn M. Ingraham, Northern Lights District Manager, AJT-CG 1

**Subject:** Operational Error MSP-T-10-E-003/MSP-T-10-E-004 (*Revised*)

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Operational Error, MSP-T-10-E-003 was classified as a category A error. Operational Error, MSP-T-10-E-004 was classified as a category B error. These errors were reported by M98 and MSP personnel, respectively.

**Summary of the Events:** These operational errors occurred on the MSP South LC position on September 16, 2010. MSP was operating on a Runway 30L/R configuration. The LC North and LC South positions were recently de-combined. The TSCIC/CC position relief briefing was in progress. The weather at the time of the occurrence was IFR.

AWE1848, an A320, departed Runway 30R assigned 7,000 feet. AWE1848 was initially assigned runway heading and then at approximately ½ mile off the departure end of the runway assigned a 260 heading, as coordinated with LC South, and instructed to contact departure. BMJ46, a BE99, departing Runway 30L, was instructed to turn left heading 180 and cleared for takeoff, anticipating BMJ46 would turn well inside the Runway 30R departure. BMJ46 did not turn as instructed and continued to fly runway heading. At the time that BMJ46 was rolling down the runway for departure, the controller was distracted by ground control traffic, questioning a turn point off of Runway 35. The LC South controller did not notice BMJ46 had not turned and separation was lost. When the flight paths crossed, separation was re-established. Subsequently and after prompting by the LC South controller, BMJ46 executed the left turn heading 180 and separation was again lost.

### Causal Factors:

1. These errors involved misapplication of the requirements of JO 7110.65S paragraph 5-8-3c, 4-5-1a, and paragraph 5-5-4; the LC South controller failed to apply initial departure divergence separation and subsequently failed to provide standard vertical or radar separation.
2. The LC South controller cleared BMJ46 for take-off Runway 30L without ensuring separation with AWE184 previously released off Runway 30R through LC North.

**Additional Findings:**

1. The LC South controller was engaged in a ground taxi operation on an inactive runway at the time of the incident. This diverted the controller's attention from the BMJ46 aircraft that failed to turn as anticipated.
3. The yellow day glow memory strip was not utilized at the LC South position as required by the MSP SOP, when delegating airspace or a heading.
4. Common ARTS auto acquire did not occur until after the initial error, therefore, there was no conflict alert warning.
5. The LC position was in the process of being de-combined during the onset of this operation. While both controllers clearly understood the expected outcome, the execution may have been better had the LC position split occurred distinctly before or after the conduct of this operation.
6. The Bemidji Aviation fleet normally departs after the LC positions are split. The fleet departed about 20 minutes earlier than usual.

**Management Actions:** These events are covered under ATSAP.

The MSP OM, MSP FLMs on duty, Quality Control personnel, and the involved employees have conducted a thorough review of the errors and discussed the issues that contributed to the events. Management has also had discussions with Bemidji Aviation regarding early flight departure times and procedures.

**Facility Actions:**

1. The MSP OM has conducted face-to-face briefings to all MSP operational employees:
  - a. A video replay with voice, was conducted for all MSP controllers, reviewing the events associated with the errors. Special emphasis was placed on ensuring positive separation using proper application of departure divergence and standard radar/vertical separation procedures.
  - b. Best practices for de-combining a position would be to do so at the conclusion of, or prior to, planning an operation that includes delegation of airspace.
  - c. Proper use of the required yellow day glow memory strip when delegating airspace or a heading.
  - d. Runway crossing clearances for several aircraft shall not be grouped into a single clearance and require acknowledgement from each pilot.

2. The following Notices have either been or are in the process of being briefed:

a. **Notice 7110.337, Runway Crossing Responsibilities for Runway 17/35**, establishes when Runway 17/35 is an inactive runway, the GC position shall be responsible for Runway 17/35 crossings. When Runway 17/25 is an active runway, the LC West position shall be responsible for Runway 17/35 crossings.

b. **Notice 7110.338, Cab Coordinator and Splitting Positions**, establishes the CC position should not be simultaneously relieved when any other operating positions in the Tower Cab are in the process of being split.

c. **Notice 7110.339, Local Control Delegation of Airspace**, establishes procedures for coordinating the delegation of airspace between LC positions including ensuring traffic pertaining to the operation is exchanged, controller accepting the restrictions shall be responsible to ensure approved separation is maintained between the involved aircraft, and diverging course separation is ensured prior to turning aircraft off of runway heading.

*Note: The MSP OM has also added proper scanning techniques to his briefings.*

3. The facility has reviewed the Common ARTS auto acquire parameters and made adjustments to decrease the delay between when an aircraft becomes airborne and when it auto acquires in the Common ARTS system. The CARTS/radar arc's around Minneapolis have been reduced by 1/8 of a mile. Further adjustment to 1/4 of a mile will be tried. We will continue monitor the adjustments throughout the next 30 days to ensure the adjustment meets our needs without creating continuous conflict alerts when there are simultaneous departures off of the parallel runways.

4. Taxi/Ground Movement Procedures has been added to the MSP FSAS as an Action Item to check that controllers provide clearance instructions using prescribed procedures and phraseology.

#### **Follow-Up Actions:**

A review will be conducted by the MSP OM/Designee throughout the months of October and November, 2010, to ensure compliance with initial departure divergence separation, SOP changes, and correct runway crossing procedures are followed. The tape reviews shall include review of the LC and GC positions to ensure compliance. The reviews will include:

1. Minimum of 2 hours operational monitor time per week.
2. Combination of day, evening, and midnight shift operations.
3. High traffic volume times for the day and evening shifts.

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